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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,639	12/29/2003	John Erickson	12104	5719
28484 7590 05/01/2008 BASF AKTIENGESELLSCHAFT CARL-BOSCH STRASSE 38, 67056 LUDWIGSHAFEN LUDWIGSHAFEN, 69056 GERMANY				
EXAMINER				
LEE, EDMUND H				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
05/01/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/747,639

**Applicant(s)**

ERICKSON ET AL.

**Examiner**

EDMUND H. LEE

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-45 and 47-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-45 and 47-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S5108)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohiuddin (USPN 4350739) in view of Salem et al (USPN 2976202). In regard to claim 1, Mohiuddin teaches all of the claimed limitation (col 1, lns 22-38; col 2, lns 22-44; col 3, lns 6-14 col 26-43) except infusing the paint composition with an alkali metal hydroxide. Salem et al teach a method of improving bonding between polymers and polyurethanes (col 1, lns 15-21 and 32-43; col 3, lns 25-31 and 54-59; Table I); using a resin forming catalyst such as sodium hydroxide to the substrate (polymer) to improve bonding between the substrate (polymer) and the polyurethane layer (col 1, lns 15-21 and 32-43; col 3, lns 25-31 and 54-59; Table I). Mohiuddin and Salem et al are combinable because they are analogous with respect to improving bonding between a polymeric substrate and a polyurethane layer. Furthermore, both references teach the use of a reaction promoter/resin forming catalyst to improve adhesion. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use sodium hydroxide (alkali metal hydroxide) as taught by Salem et al as the reaction promoter of Mohiuddin in order to improve the adhesion of the paint layer of Mohiuddin to the polyurethane layer of Mohiuddin. In regard to claim 3, such is taught

by the combination of Mohiuddin and Salem et al. In regard to claim 4, material formulation is well-known in the molding art as an important molding parameter and the desired amount of each component would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed amount is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed amount of the hydroxide in the process of Mohiuddin in order to ensure good bonding. In regard to claim 5, such is taught by the combination of Mohiuddin and Salem et al. In regard to claims 6 and 7, such is well-known in the molding art as an effective means for applying a material. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to spray the hydroxide onto the paint layer of Mohiuddin in order to reduce molding complexity. In regard to claims 8-11, such are taught by Mohiuddin (col 1, lns 22-38; col 2, lns 22-44; col 3, lns 6-14 col 26-43). In regard to claim 12, such is well-known in the molding art as a conventional step to aid in the removal of molded parts. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a mold release to the mold of Mohiuddin in order to achieve the above result. In regard to claim 13, such is well-known in the molding art as an effective means for applying a material. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to spray the hydroxide onto the paint layer of Mohiuddin in order to reduce molding complexity. In regard to claims 14 and 15, such are well-known in the molding art as an effective means for initiating the formation of

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polyurethane. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to initiate the formation of the polyurethane of Mohiuddin by one of the claimed methods in order improve the process efficiency of Mohiuddin. In regard to claim 16, such is taught by Mohiuddin (col 1, Ins 22-38; col 2, Ins 22-44; col 3, Ins 6-14 col 26-43). In regard to claim 17, such is taught by Mohiuddin (col 1, Ins 22-38; col 2, Ins 22-44; col 3, Ins 6-14 col 26-43). In regard to claim 18, such is taught by Mohiuddin (col 1, Ins 22-38; col 2, Ins 22-44; col 3, Ins 6-14 col 26-43). In regard to claims 19-20, such are well-known in the molding art as an effective means for initiating the formation of polyurethane. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to initiate the formation of the polyurethane of Mohiuddin by one of the claimed methods in order improve the process efficiency of Mohiuddin. In regard to claim 21, mold temperature is well-known in the molding art as an important molding parameter and the desired temperature would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the mold of Mohiuddin to the claimed temperature in order to effectively cure the materials. In regard to claim 22, such is taught by the combination of Mohiuddin and Salem et al.

3. Claims 23-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohiuddin (USPN 4350739) in view of Salem et al (USPN 2976202). In regard to claim

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23, Mohiuddin teaches all of the claimed limitation (col 1, lns 22-38; col 2, lns 22-44; col 3, lns 6-14 col 26-43) except infusing the paint layer with an alkali metal hydroxide.

Salem et al teach a method of improving bonding between polymers and polyurethanes (col 1, lns 15-21 and 32-43; col 3, lns 25-31 and 54-59; Table I); using a resin forming catalyst such as sodium hydroxide to the substrate (polymer) to improve bonding between the substrate (polymer) and the polyurethane layer (col 1, lns 15-21 and 32-43; col 3, lns 25-31 and 54-59; Table I). Mohiuddin and Salem et al are combinable because they are analogous with respect to improving bonding between a polymeric substrate and a polyurethane layer. Furthermore, both references teach the use of a reaction promoter/resin forming catalyst to improve adhesion. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use sodium hydroxide (alkali metal hydroxide) as taught by Salem et al as the reaction promoter of Mohiuddin in order to improve the adhesion of the paint layer of Mohiuddin to the polyurethane layer of Mohiuddin. In regard to claim 24, the use of a specific material is a mere obvious matter of choice dependent on the desired final product and material availability and of little patentable consequence to the claimed process.

Further, the claimed material is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed material in the process of Mohiuddin in order to ensure effective bonding. In regard to claim 25, such is well-known in the molding art as an effective means for applying a material. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to spray the hydroxide within the claimed range onto

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the paint layer of Mohiuddin in order to reduce molding complexity. In regard to claim 26, such is well-known in the molding art as a conventional step to aid in the removal of molded parts. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a mold release to the mold of Mohiuddin in order to achieve the above result. In regard to claim 27, such is taught by Mohiuddin (col 1, lns 22-38; col 2, lns 22-44; col 3, lns 6-14 col 26-43). In regard to claim 28, such is taught by Mohiuddin (col 1, lns 22-38; col 2, lns 22-44; col 3, lns 6-14 col 26-43). In regard to claims 29-30, such are well-known in the molding art as an effective means for initiating the formation of polyurethane. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to initiate the formation of the polyurethane of Mohiuddin by one of the claimed methods in order improve the process efficiency of Mohiuddin. In regard to claim 31, mold temperature is well-known in the molding art as an important molding parameter and the desired temperature would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the mold of Mohiuddin to the claimed temperature in order to effectively cure the materials. In regard to claim 32, such is taught by the combination of Mohiuddin and Salem et al.

4. Claims 33-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohiuddin (USPN 4350739) in view of Salem et al (USPN 2976202). In regard to claim

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33, Mohiuddin teaches all of the claimed limitation (col 1, Ins 22-38; col 2, Ins 22-44; col 3, Ins 6-14 col 26-43) except infusing the paint layer with an alkali metal hydroxide.

Salem et al teach a method of improving bonding between polymers and polyurethanes (col 1, Ins 15-21 and 32-43; col 3, Ins 25-31 and 54-59; Table I); using a resin forming catalyst such as sodium hydroxide to the substrate (polymer) to improve bonding between the substrate (polymer) and the polyurethane layer (col 1, Ins 15-21 and 32-43; col 3, Ins 25-31 and 54-59; Table I). Mohiuddin and Salem et al are combinable because they are analogous with respect to improving bonding between a polymeric substrate and a polyurethane layer. Furthermore, both references teach the use of a reaction promoter/resin forming catalyst to improve adhesion. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use sodium hydroxide (alkali metal hydroxide) as taught by Salem et al as the reaction promoter of Mohiuddin in order to improve the adhesion of the paint layer of Mohiuddin to the polyurethane layer of Mohiuddin. In regard to claim 34, the use of a specific material is a mere obvious matter of choice dependent on the desired final product and material availability and of little patentable consequence to the claimed process.

Further, the claimed material is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed material in the process of Mohiuddin in order to ensure effective bonding. In regard to claim 35, such is well-known in the molding art as an effective means for applying a material. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to spray the hydroxide within the claimed range onto



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the paint layer of Mohiuddin in order to reduce molding complexity. In regard to claim 36, such is well-known in the molding art as a conventional step to aid in the removal of molded parts. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a mold release to the mold of Mohiuddin in order to achieve the above result. In regard to claim 37, such is taught by Mohiuddin (col 1, lns 22-38; col 2, lns 22-44; col 3, lns 6-14 col 26-43). In regard to claim 38, such is taught by Mohiuddin (col 1, lns 22-38; col 2, lns 22-44; col 3, lns 6-14 col 26-43). In regard to claims 39-40, such are well-known in the molding art as an effective means for initiating the formation of polyurethane. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to initiate the formation of the polyurethane of Mohiuddin by one of the claimed methods in order improve the process efficiency of Mohiuddin. In regard to claim 41, mold temperature is well-known in the molding art as an important molding parameter and the desired temperature would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the mold of Mohiuddin to the claimed temperature in order to effectively cure the materials. In regard to claim 42, such is taught by the combination of Mohiuddin and Salem et al.

5. Claims 43-45 and 47-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohiuddin (USPN 4350739) in view of Salem et al (USPN 2976202).

In regard to claim 43, Mohiuddin teaches all of the claimed limitation (col 1, Ins 22-38; col 2, Ins 22-44; col 3, Ins 6-14 col 26-43) except infusing the paint composition with an alkali metal hydroxide. Salem et al teach a method of improving bonding between polymers and polyurethanes (col 1, Ins 15-21 and 32-43; col 3, Ins 25-31 and 54-59; Table I); using a resin forming catalyst such as sodium hydroxide to the substrate (polymer) to improve bonding between the substrate (polymer) and the polyurethane layer (col 1, Ins 15-21 and 32-43; col 3, Ins 25-31 and 54-59; Table I). Mohiuddin and Salem et al are combinable because they are analogous with respect to improving bonding between a polymeric substrate and a polyurethane layer. Furthermore, both references teach the use of a reaction promoter/resin forming catalyst to improve adhesion. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use sodium hydroxide (alkali metal hydroxide) as taught by Salem et al as the reaction promoter of Mohiuddin in order to improve the adhesion of the paint layer of Mohiuddin to the polyurethane layer of Mohiuddin. In regard to claim 44, such is taught by Mohiuddin (col 1, Ins 22-38; col 2, Ins 22-44; col 3, Ins 6-14 col 26-43). In regard to claim 45, such is taught by Mohiuddin (col 1, Ins 22-38; col 2, Ins 22-44; col 3, Ins 6-14 col 26-43). In regard to claim 47, such is taught by the combination of Mohiuddin and Salem et al. In regard to claim 48, material formulation is well-known in the molding art as an important molding parameter and the desired amount of each component would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed amount is generally well-known in the molding art and it

would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed amount of the hydroxide in the process of Mohiuddin in order to ensure good bonding. In regard to claim 49, such is taught by the combination of Mohiuddin and Salem et al. In regard to claims 50 and 51, such is well-known in the molding as an effective means for applying a material. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to spray the hydroxide onto the paint layer of Mohiuddin in order to reduce molding complexity. In regard to claim 52, such is taught by Mohiuddin (col 1, lns 22-38; col 2, lns 22-44; col 3, lns 6-14 col 26-43). In regard to claim 53, such is well-known in the molding art as a conventional step to aid in the removal of molded parts. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a mold release to the mold of Mohiuddin in order to achieve the above result. In regard to claim 54, mold temperature is well-known in the molding art as an important molding parameter and the desired temperature would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the mold of Mohiuddin to the claimed temperature in order to effectively cure the materials. In regard to claim 55, such is taught by the combination of Mohiuddin and Salem et al.

6. Applicant's arguments filed 1/31/08 have been fully considered but they are not persuasive.

In response to applicant's argument that Salem et al is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Salem et al is within applicant's endeavor, i.e., increasing bond between a polymer-based coating composition and a polyurethane molding material. Though Salem et al teach bonding between a polymer-based fabric and polyurethane instead of the claimed paint composition and the claimed polyurethane, one of ordinary skill in the art at the time the invention was made would have recognized that Salem et al also broadly taught that the bond between a polymer-based coating composition/material and polyurethane could be improved by the inclusion of a catalyst (sodium hydroxide) to the polymer-based coating composition/material. Therefore, Salem et al qualifies as analogous art. It should also be noted that Salem et al is reasonably pertinent to the problem with which applicant is concerned with, i.e., delamination of coating composition/material from a polyurethane layer.

In response to applicant's argument that the examiner has failed to consider the references as a whole, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references

would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). It should be noted that Mohiuddin teaches using a reaction promoter (catalyst) for polyurethane in the coating composition, and Salem et al teach using a catalyst (sodium hydroxide) for the resin-forming material in the coating composition/material.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following US patents teach the state of the art: 5017634, 4356230, 4314962, 3378531, 3047540, 4800123, and 4486370.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571.272.1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EDMUND H. LEE  
Primary Examiner  
Art Unit 1791

EHL

/Edmund Lee/  
Primary Examiner, 1791

**Application Number****Application/Control No.**

10/747,639

**Applicant(s)/Patent under  
Reexamination**

ERICKSON ET AL.

**Examiner**

EDMUND H. LEE

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